

REMARKS

Claims 1-16 are pending. By this Amendment, claims 1-16 are amended and withdrawn, non-elected claims 17-39 are cancelled. In addition, English-language versions of Figs. 19-21 (previously submitted with the translated application on August 16, 2000) are re-submitted herewith. Independent claims 1, 4, 11, 13, 14 and 16 are amended to even more clearly distinguish over the applied references. The other amendments to the claims are made to correct punctuation. No new matter is added by the above amendments. In particular, see, for example, Figs. 3 and 4 and their accompanying description, which describes the first and second image processing circuits.

As noted above, withdrawn, non-elected claims 17-39 have been cancelled. Applicants reserve the right to file to one or more divisional applications to pursue the non-elected claims. In addition, in view of the cancellation of claims 17-39, Applicants submit herewith the attached Amendment of Inventorship in order to delete Yutaka TSUDA as an inventor of this application.

The Office Action objected to Figs. 19-21, alleging that they are not in the English language. Although Figs. 19-21 filed with the Japanese-language application on February 4, 2000 were in the Japanese language, Applicants note that translated versions of Figs. 19-21 were submitted with the translated application on August 16, 2000. Copies of the English-language Figs. 19-21, previously filed on August 16, 2000, are submitted herewith as replacement sheets. Withdrawal of the drawing objection is requested.

Claims 1 and 2 stand rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,343,243 to Maeda. In addition, claims 4 and 5 stand rejected under 35 U.S.C. §103(a) over Maeda. These rejections are respectfully traversed.

Independent claims 1 and 4 recite that pre-treatment is performed on image data output by the image-capturing device in units of individual lines in line sequence. Claims 1 and

4 also recite that the image data having undergone the pre-treatment is subjected to format processing in units of blocks, and then the image data of one frame is stored in the memory device, which is capable of storing at least one frame of image. The pre-treatment in line sequence on image data output from the image-capturing device is advantageous in that it expedites the image data processing, for example. See, for example, page 47, line 6 - page 48, line 7 of the specification.

Maeda does not disclose or suggest the above-noted combination of features. Maeda discloses a digital camera in which image processing in block units is performed using two line memories 21 and 22, rather than a memory device in which image data of at least one frame of an image can be temporarily stored, as recited in independent claims 1 and 4. The output of a CCD is stored in line memories 21 and 22 alternately. The CCD output is then converted into brightness/color different signals, and compression is performed. Maeda does not disclose or suggest pre-treatment of image data output from the CCD in line sequence, and does not disclose a memory in which at least one frame of image is stored after such pre-treatment and format processing. Accordingly, claims 1, 2, 4 and 5 are patentable over Maeda.

Claims 3, 6 and 11-16 stand rejected under 35 U.S.C. §103(a) over Maeda in view of U.S. Patent No. 4,774,565 to Freeman. This rejection is respectfully traversed.

Independent claims 11, 13, 14 and 16 have been amended to recite: (i) that image data of at least one frame of image captured by the image-capturing device is stored in a memory device, (ii) that pre-treatment on image data output from the image-capturing device is performed in units of individual lines in line sequence to store image data of one frame in the memory device, and (iii) that data format processing (claims 11 and 14) or median processing (claims 13 and 16) is performed on the image data which have undergone the pre-treatment, before storing of the image data of one frame in the memory device. As noted above, Maeda does not disclose or suggest: (1) pre-treatment in line sequence of image data output from the

image-capturing device, or (2) providing a memory capable of storing at least one frame of image, into which the image data is stored after pre-treatment and data formatting or median processing. Freeman does not overcome these deficiencies in Maeda. Accordingly, claims 3, 6 and 11-16 are patentable over Maeda and Freeman. Withdrawal of the rejection is requested.

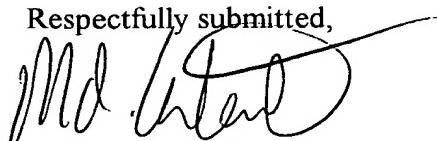
Claims 7 and 8 stand rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,402,172 to Tagami et al. In addition, claims 9 and 10 stand rejected under 35 U.S.C. §103(a) over Tagami et al. These rejections are respectfully traversed.

Tagami et al. does not disclose or suggest an arrangement in which image data output by an image-capturing device is processed to: (i) calculate a color difference signal based upon the image data, (ii) perform interpolation processing and low pass filtering processing simultaneously on the color difference signal using filter coefficients for interpolation/low pass filtering, and then (iii) performing matrix processing to generate a formatted signal, as recited in independent claims 7 and 9.

The Office Action refers to col. 30, lines 3-50 of Tagami et al. This portion of Tagami et al. merely indicates that linear interpolation is performed on an image signal in order to electronically enlarge the image, and that the enlarged image is then compressed using JPEG. The linear interpolation in order to electronically enlarge the image does not correspond to the interpolation processing and simultaneous low pass filtering on a color difference signal as recited in claims 7 and 9. Accordingly, claims 7-10 are patentable over Tagami et al.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,  
  
Mario A. Costantino  
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MAC/ccs

Attachments:

- Replacement Sheets (Figs. 19-21)
- Amendment of Inventorship
- Petition for Extension of Time

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